Residency Interviews in the 21st Century

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Since the 1950s, physicians and scientists have made incredible advances throughout the field of medicine. We have discovered life-saving drugs, performed procedures that would have seemed unimaginable, and improved the quality of life of patients across the spectrum of care. All of these accomplishments were made possible by technological advances.

When it comes to selecting candidates for medical residencies, however, there has been less progress in incorporating technology. Since the National Resident Matching Program (NRMP) was developed in 1952, its structure has remained fairly stable. After 4 years of medical school, we require medical students, who often carry 6-figure debt burdens, to pay their own way to visit programs that offer them an interview. With 58 400 applicants participating in anywhere from 1 to 30 interviews each,[1] this system creates a great amount of complexity, financial burden, and stress. Despite adopting an online application process and posting some program descriptions online, programs and students have not yet fully harnessed the power of the Internet to meaningfully improve the applicant information, decrease the time and opportunity costs of the application process, or improve the overall outcomes. Having been through this process recently, we offer several suggestions to improve the experience for both interviewees and programs.

Online Interview Scheduling

One of the most stressful components of the residency interview process is the scheduling of interviews. Students must triage dozens of e-mails and reply to interview invites with preferences in a time-sensitive manner. The logistical complexity of doing this while on clerkships cannot be overstated. From the program's perspective, this also creates a cumbersome and labor-intensive step for the residency staff, which is associated with long delays in interview date confirmation after preferences are sent by applicants.

Recently, online scheduling services, such as Interview Broker and Thalamus, have provided a streamlined, web-based solution to this problem. Similar to the scheduling of an airline ticket online, an online interview portal allows applicants to independently see up-to-date interview availability, select their preferred date, and make wait-list requests for specific days. A singular, online portal for scheduling interviews would allow applicants to view their entire interview schedule and coordinate with all of their other programs. While preserving the egalitarian "first come, first served" approach, an online system would minimize programs' burden of having a dedicated staff member to this otherwise "digitizable" task. If the NRMP were to offer this service, it would further lower the per program cost and improve adoption across all programs. Ultimately, streamlining the scheduling process would improve applicants' experience and reduce costs for programs.

Digital Program Materials

When choosing which programs to apply to and determining how to rank them, applicants often supplement advice from mentors and colleagues with online research and materials from the program. Investing in developing an accurate and interactive website creates enormous value. It allows applicants to learn more about a program's schedule, research opportunities, curriculum, and culture. This can be further supplemented with interactive tools like virtual hospital tours and video clips of Health Insurance Portability and Accountability Act–compliant conferences and didactic sessions. Websites can be a valuable tool for applicants as they decide which programs they would be most interested in attending. Standardized metrics or reports would further enhance cross program comparisons. This would result in more informed applicants and would facilitate applications and ranking lists.

On interview day, programs often prepare a physical folder that is handed to interviewees. Its contents vary, but often include information on current residents, faculty bios, research programs, surrounding community, clinical schedule, etc. Making this packet available to interviewees in digital form in advance of the interview day would be easy to implement, as the programs already have the documents in digital form

DOI: http://dx.doi.org/10.4300/JGME-D-15-00501.1

prior to printing. Additionally, there would be numerous benefits to programs and applicants. First, it would better allow the interviewees to familiarize themselves with the program and prepare questions before the interview day. Second, it would be an environmentally friendly way to help applicants organize information and prevent them from carrying multiple heavy binders as they travel to and from interviews. Third, it would allow applicants to easily refer back to program information when they are creating their rank lists. Lastly, it would lower the programs' costs by minimizing the amount of material they have to print.

Videoconferencing Interviews

We believe that the power of videoconferencing as an interview tool has not been fully utilized. While we recognize that there is no perfect substitute for an in-person program visit, technology could help alleviate the time and cost burdens of traveling to multiple interviews. Aside from the high cost, medical students miss a significant number of days due to interviews, detracting from their educational experience. For fellowship interviews, the problem of obtaining clinical coverage is even more evident.

Several programs have incorporated web-based videoconferencing (WBVC) into their interviews, all with marked success and impressive results. For example, a gastroenterology fellowship program compared face-to-face interviews with WBVC and found that 81% of candidates stated that their WBVC experience met or exceeded their expectations, while 87% stated that it should be an option in fellowship interviews.[2] Another study estimated that WBVC interviews saved applicants anywhere from $349 to $784 and saved the program $586 per applicant.[3] Furthermore, a study that randomized applicants to Skype versus traditional on-site interviews showed that applicants and faculty favored using WBVC as an adjunct to on-site interviews and that applicants required significantly less time away from medical school when WBVCs were used.[4] This study did confirm that, as expected, participants consider the traditional on-site interview to be more effective than virtual ones.

Incorporating videoconferencing into residency interviews is not a one-size-fits-all model. Some have suggested using WBVC to screen future on-site interviewees so that only those with a high chance of matching travel to the hospital. This model would allow programs to interview a smaller group of applicants on-site and would lower costs to both applicants and programs. Others suggest making on-site interviews optional based on interviewee preference or supplementing WBVC with more casual "second look" visits, which many programs already offer.[5]

WBVC can be very effective during the time-sensitive Supplemental Offer and Acceptance Program, when it is not feasible for applicants to interview on-site.[6] Despite these heterogeneous approaches, most early pilot programs suggest that WBVC is a cost-saving and feasible intervention given the availability of free conferencing platforms. Additional studies are needed to better understand specific implementation challenges, understand how this technology could be optimally used to lessen the burden on applicants' time and wallets, and help programs spend their time and financial resources more effectively.

The Road Ahead

The field of medicine is dependent on reinvigorating the US health care system with newly minted physicians. As we teach our trainees about the newest clinical advances or latest pharmacotherapies, we must continue to improve the process by which they find the optimal residency program. By facilitating the interview scheduling experience, digitizing the program's website and interview day materials, and incorporating videoconferencing into the interview process, we could reduce costs and improve the experience for both applicants and programs and thrust the residency interview process into the 21st century.

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